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BEYER WEAVER & THOMAS LLP
P.O. BOX 70250
OAKLAND, CA 94612-0250

EXAMINER	
PARK, JUNG H	

ART UNIT	PAPER NUMBER
2661	

DATE MAILED: 02/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/785,021	LEYN ET AL.	
	Examiner	Art Unit	
	Jung Park	2661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 November 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

2. Claims 1, 3-7, 9-14, 17-20 and 22 are rejected under 35 U.S.C. 102(e) as being anticipated by Woodhead et al. (U.S. 5,640,388, hereafter "Woodhead").

Regarding claims 1, 9, 20 and 22, Woodhead discloses the method of claim 9 and the network device of claims 1, 20 and 22. Woodhead discloses, "network device[s and method] for transmitting a bitstream, the network device comprising:

a first communication interface (*120 fig.5*), configured to receive the bitstream the bitstream including a timing relationship for data in a portion of the bitstream (*PCR as described in col.18, ln.33-34; col.19, ln.5-12*);

a processing apparatus (*122, 126-128, & 130 in fig.5*) configured to process the data in the bitstream portion in a manner that introduces jitter in the data (*transit time (jitter) of packets in 1012 fig.11; col.18, ln.57-59*), and create a timestamp including timing information that describes the timing relationship of the data as the data was received (*new PCR, which includes old PCR and transit time as described in col.18, ln.57 - col.19, ln.12*); and

a second communication interface (*124 fig.5*) configured to transmit an output bitstream onto a channel (*channel connected to 124 fig.5*), the output bitstream including the timestamp and the data including jitter introduced by the processing apparatus

(*output stream format, which includes PCR including transit time, as an output of 124 fig.5 is shown in fig.1; see details in col.3, ln.34-61*)."

Regarding claim 3, Woodhead discloses "the network device of claim 1 wherein further including a synchronization source configured to provide a reference time to the processing apparatus that is used in generating the timestamp (*figure 5, element 132 as described in col. 12, lines 48-49 where the local clock is used for clock reference as a synchronization source*)."

Regarding claim 4, Woodhead discloses "the network device of claim 1 wherein the processing apparatus includes a set of processing modules that may each create the timestamp (*figure 1and 4 where each decoder is used to create a packet as shown in figure 1 with a timestamp*)."

Regarding claim 5, Woodhead discloses "the network device of claim 1 wherein the processing apparatus is configured to add this timestamp to at least one packet in a set of packets included in the first bitstream (*col. 19, lines 5-12 where the new timestamp is replacing the old timestamp and thus it is added to at least one packet in the bitstream*)."

Regarding claim 6, Woodhead discloses "the network device of claim 5 wherein the bitstream is an MPEG-2 compressed bitstream and the processing apparatus is configured to add the timestamp to a transport packet in the MPEG-2 bitstream (*col. 18, lines 30 – col. 19, lines 1-12*)."

Regarding claim 7, Woodhead discloses "the network device of claim 6 wherein the processing apparatus is configured to replace a synchronization byte in the bitstream with a new synchronization byte (*col. 19, lines 5-12 where a PCR by its definition of being a timestamp is used to synchronization the bitstream so that the output matches the input as closely as possible*), the new synchronization byte signaling the beginning of payload data for a payload portion of the bitstream (*figure 2 shows bitstreams with timestamps and as seen they signal the beginning of the payload of the packet*)."

Regarding claim 10, Woodhead discloses "the method of claim 9 further including adding a synchronization byte that signals the beginning of payload data for a packet included in the bitstream (col. 1, lines 46-52 wherein the overload information is effectively synchronization information by way of its described use)."

Regarding claim 11, Woodhead discloses "the method of claim 10 wherein the bitstream includes a set of packets (*figure 4 where each shaded box represents a packet*) and the method further includes adding the timestamp to at least one packet in the bitstream (*col. 19, lines 5-12 where the new timestamp is replacing the old timestamp and thus it is added to at least one packet in the bitstream*)."

Regarding claim 12, Woodhead discloses "the method of claim 9 further including receiving the bitstream from a second channel (*col. 18, lines 27-40 whereby demultiplexing the bitstream the dejitter device has effectively separated the packets into different channels, including a first and second channel*)."

Regarding claim 13, Woodhead discloses "the method of claim 12 further including restoring the timing relationship of the data in the portion of the bitstream after processing has occurred using the timing information included in the timestamp (*col. 19, lines 50-57 whereby the outputted data stream has been restored, as much as possible, to the original transmit timing thus it has been restored after processing and col. 5, lines 20-24 describes the recovery using timestamps*)."

Regarding claim 14, it is claim corresponding to claim 6 and is therefore rejected for the similar reasons set forth in the rejection of claim 6.

Regarding claim 17, Woodhead discloses "the method of claim 14 further including adding a stream identifier to the bitstream (*figure 1, element 16 of each is a stream identifier*).

Regarding claim 18, Woodhead discloses "the method of claim 9 wherein processing comprises one of multiplexing, re-multiplexing, de-multiplexing, encoding, transcoding, scrambling, and de-scrambling (*col. 18, lines 36-37 where the bitstream is at least de-multiplexed*)."

Regarding claim 19, Woodhead discloses "the method of claim 9 wherein the processing is performed in real-time (*col. 1, lines 27-37 where the video stream and audio steam are inherently real-time when watching TV for instance*)."

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 2 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Woodhead in view of Magee et al. (U.S. 6,002,687, "Magee").

Regarding claims 2 and 23, Woodhead discloses the network device of claim 1 and 22. Woodhead further discloses, "the processing apparatus is configured to multiplex, re-multiplex, de-multiplex (*figure 6, element 121 & 123 there should be the processing steps of multiplex, re-multiplexed and de-multiplex at some point in the elements*), encode (*col. 9, lines 29-31 where having to change to a different transmission standard means the data will have to be encoded*), transcode (*col. 9, lines 29-31 where having to change to a different transmission standard means the data will have to be transcoded*)..."

However, Woodhead lacks what Magee discloses, "scramble (*col. 3, lines 3-7 where the data can have at least two forms of scrambling),* and de-scramble (*col. 3, lines 3-7 whatever is scrambled at the transmitting end must be de-scrambled at the receiving end*) the data."

It would have been obvious to one of ordinary skill in the art at the time of invention to scramble and de-scramble the data for the purpose of encoding and decoding the data (*Magee, col. 2, lines 51-55*). A motivation for encoding and decoding

data is to compress that data for transmission, thus saving system resources (*Magee, col. 3, lines 23-25*).

5. Claims 8, 15, 16, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Woodhead in view of Lawrence (U.S. 6,323,789).

Regarding claims 8, 15 and 21, Woodhead discloses the network device of claim 6 and the device of claim 20. However, Woodhead lacks what Lawrence discloses, "the second interface is configured to transmit the output bitstream according to a DVB/ASI protocol (*col. 1, lines 52-col. 2, lines 1-16*)." It would have been obvious to one with ordinary skill in the art at the time of invention to include the DVB/ASI protocol for transmission for the purpose of allowing the data to be encoded into a word with more bits. The motivation for encoding data to a higher bit count is so that more characters or additional functions can be implemented using the encoded data.

Regarding claim 16, Woodhead and Lawrence disclose the method of claim 15. However, Woodhead lacks what Lawrence further discloses, "the transmitting utilizes an 8B/10B encoding scheme (*col. 1, lines 52-col.2, lines 1-16*)." It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to include the 8B/10B encoding scheme for the purpose of allowing the data to be encoded into a word with more bits. The motivation for encoding data to a higher bit count is so that more characters or additional functions can be implemented using the encoded data.

Response to Arguments

6. The applicant's arguments filed on November 10, 2005 have been fully considered, but they are not persuasive.

Rejection under 35 U.S.C. § 102

At pages 7-8, applicant argues that the reference fails to teach a time stamp including "timing information that describes the timing relationship of the data as the data was received." In reply, the new PCR of Woodhead includes old PCR and transit time (col.18, ln.57-59) which forms a timing relationship of the data as the data was received, as claimed. It should be noted that the relationship is not defined in the claim to distinguish from the new PCR of Woodhead. Therefore, the examiner respectfully disagrees.

At page 8, applicant also argues that col.9, lines 33-36 of the reference does not teach the claim limitation by saying that, "this portion of Woodhead discusses the introduction of jitter in non-MPEG networks. The propagating of network error during a non-MPEG network transmission does not teach creating a timestamp as recited." In reply, Woodhead teaches that the original PCR value experienced a variable delay is no longer valid when certain packets may experience a variable delay during multiplexing since the multiplexer can only send one packet at a time (see col.3, lines 39-43). That is, although Woodhead does not describe this delay problem in the propagating of network in the col.9, lines 33-36, Woodhead teaches that there is a need to apply the method of adjusting the PCR value *by creating a new PCR value (which includes the information of the timing relationship of the data as the data was received) when the multiplexer generates a variable delay*. And then, the packet leaves the device with the timestamp information of the timing relationship of the data as the data was received.

At page 8, applicant further argues that col.5, lines 20-21 does not teach the claim limitation recited in the independent claim 1. In reply, when there is a variable delay generated by the multiplexer, the method of adjusting PCR value is applied in order to adjust the delay before the packet leaves. Therefore, the examiner respectfully disagrees.

Rejection under 35 U.S.C. § 103

At page 8, with respect to the rejection of claims 2, 8, 15, 16, and 23, applicant disputes that, "the use of Woodhead in any obviousness-type rejection of the claims since, per the MPEP, this would oppose the rules for applying a reference via an obviousness rejection." In reply, Woodhead teaches the method of adjusting the variable delay by creating a new PCR value as described in above. The new PCR value, which is added that transit delay time to the original PCR value, is equivalent to "a created timestamp using the timing relationship of data as the data was received" as claimed in the independent claim 1. Therefore, the dependent claims can be held as obvious relative to Woodhead since Woodhead teaches all the claim limitations in the independent claim 1. Therefore, the claims 2, 8, 15, 16, and 23, which are depend either directly or indirectly from independent claims 1, 9, and 22 and 23, are not patentable over the art of record for the reasons set forth above with respect to the independent claims.

At page 8, applicant says that, "the present invention preserves timing relationships as received by a network device and creates timestamps using the timing relationship of data as that was received" in order to distinguish the present invention

with the teach of Woodhead. In reply, the new created timestamp as claimed, which includes the timing relationship of data as the data was received, is also for the purpose of eliminating jitter as Woodhead preserves old PCR and creates new PCR to keep the timing relationships as received by a network device for the purpose of eliminating jitter. Therefore, the examiner respectfully disagrees.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jung Park whose telephone number is 571-272-8565. The examiner can normally be reached on Mon-Fri during 7:10-4:40.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on 571-272-3126. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JP

Jung Park
Patent Examiner
Art Unit 2661
January 26, 2006

CHAU NGUYEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600